

ABSTRACT

After performing rough grinding to the back surface of a semiconductor wafer using the first grinding material (for example, particle size of polish fine powder from #320 to #360) and making the thickness of the semiconductor wafer, for example less than 140 μm , less than 120 μm , or less than 100 μm , the back surface of the semiconductor wafer being performed fine finish grinding using the third grinding material (for example, particle size of polish fine powder from #3000 to #100000), the thickness of the semiconductor wafer becomes, for example less than 100 μm , less than 80 μm , or less than 60 μm , and the relatively thin second crush layer, for example the second crush layer of the thickness of less than 0.5 μm , less than 0.3 μm , or less than 0.1 μm is formed on the back surface of the semiconductor wafer. Thereby, without reducing the die strength of a chip, at the same time permeation of the pollution impurities from the back surface of the semiconductor wafer and further, diffusion of the pollution impurities to the circuit formation surface of the semiconductor wafer are prevented, and the poor characteristic of semiconductor elements is prevented.